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(11) EP 0 976 444 A3

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
18.10.2000 Bulletin 2000/42

(51) Int Cl.7: B01J 3/06, C23C 30/00,
B22F 7/06, B24D 3/18,
B24D 18/00

(43) Date of publication A2:
02.02.2000 Bulletin 2000/05

(21) Application number: 99306088.8

(22) Date of filing: 30.07.1999

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

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(30) Priority: 31.07.1998 JP 21666098

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(54) A diamond sintered compact and a process for the production of the same

(57) The present invention aims at providing a material for a diamond sintered compact tool, which has a high strength and is available as a material for a cutting tool.

Accordingly, the present invention is concerned with a diamond sintered compact comprising a WC-Co type cemented carbide substrate having slight undulation

and a diamond sintered compact bonded to one surface of the substrate by sintering during a step of sintering at an ultra-high pressure and high temperature, which has a plate thickness is 0.5 mm to 5 mm and an outer diameter is at least 20 mm and whose diamond sintered compact layer has at least 50 % of a thickness area within a range of 0.05 mm to 0.4 mm and contains Co diffusing from the cemented carbide substrate.

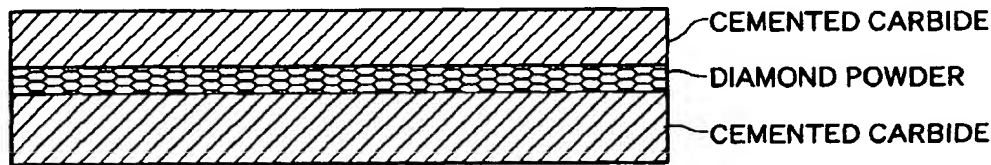


FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 99 30 6088

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 5 011 515 A (FRUSHOUR ROBERT H) 30 April 1991 (1991-04-30) * column 3, line 13 - column 3, line 21 * * column 5, line 50 - column 5, line 56; figures 2-7; example 1 *	1-8	B01J3/06 C23C30/00 B22F7/06 B24D3/18 B24D18/00
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X	US 4 293 618 A (HARA AKIO ET AL) 6 October 1981 (1981-10-06) * claim 1; example 1 *	5-8	
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B01J C04B E21B C23C B22F B24D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 22 August 2000	Examiner Willsher, C
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
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